Revolving Ferrofluid Flow in Porous Medium with Rotating Disk

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Abstract : The transmission of Malaria with seasonal were studied through the use of mathematical models. The data from the annual number of Malaria cases reported to the Division of Epidemiology, Ministry of Public Health, Thailand during the period 1997-2011 were analyzed. The transmission of Malaria with seasonal was studied by formulating a mathematical model which had been modified to describe different situations encountered in the transmission of Malaria. In our model, the population was separated into two groups: the human and vector groups, and then constructed a system of nonlinear differential equations. Each human group was divided into susceptible, infectious in hot season, infectious in rainy season, infectious in cool season and recovered classes. The vector population was separated into two classes only: susceptible and infectious vectors. The analysis of the models was given by the standard dynamical modeling.

Keywords : ferrofluid, magnetic field, porous medium, rotating disk, Neuringer-Rosensweig Model
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